

In the Claims:

Please enter the following amended claims 20 and 21:

20. (Twice Amended) A semiconductor device formed on a substrate and comprising:

a well;

a channel region of first conductivity type and being in the well;

a dielectric layer overlying the channel region;

a diffusion barrier layer directly overlying the dielectric layer, said diffusion barrier layer being a single layer;

a gate electrode directly overlying the diffusion barrier layer, said gate electrode layer comprising a semiconductor material;

a blocking layer overlying the gate electrode; and

two source/drain regions of second conductivity type formed on opposite sides of the channel region.

21. (Twice Amended) A semiconductor device formed on a substrate and comprising:

a well, said well comprising two silicon germanium filled spaces;

a channel region of first conductivity type and being in the well;
a dielectric layer overlying the channel region; and
a gate electrode overlying the dielectric layer;
wherein said two silicon germanium filled spaces comprise respective
source/drain regions of second conductivity type, said respective source/drain
regions being situated on opposite sides of the channel region.

Please enter the following new claims 22-28:

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--22. A semiconductor device formed on a substrate and comprising:
a well;
a channel region of first conductivity type and being in said well;
a dielectric layer overlying said channel region;
a diffusion barrier layer overlying said dielectric layer;
a gate electrode overlying said diffusion barrier layer;
a blocking layer overlying said gate electrode; and
two source/drain regions of second conductivity type formed on opposite
sides of said channel region;
wherein each of said dielectric layer, said diffusion barrier layer, and said
blocking layer comprise epitaxial layers.--

--23. The device of claim 22 wherein said gate electrode comprises silicon germanium.--

--24. The device of claim 22 wherein each of said source/drain regions comprises silicon germanium.--

--25. The device of claim 22 wherein each of said source/drain regions comprises amorphous silicon germanium.--

DI --26. The device of claim 22 wherein said dielectric layer is selected from the group consisting of oxides of zircon, oxides of titanium, oxides of tantalum, and oxides of hafnium.--

--27. The device of claim 22 wherein said blocking layer comprises less than or equal to ten atomic monolayers.--

--28. The device of claim 22 wherein said diffusion barrier layer comprises less than or equal to ten atomic monolayers.--